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July 10th, 1959

COCOM Document No. 3415.62/6

COORDINATING COMMITTEE

RECORD OF DISCUSSION

ON

REDEFINITION OF ITEM 1562 - TANTALUM ELECTROLYTIC CAPACITORS N.E.S.

July 6th, 1959

Present: Belgium (Luxembourg), Canada, Denmark, France, Germany, Italy, Japan, Netherlands, United Kingdom, United States.

References: COCOM 3415.62/1 - 5.

1. The CHAIRMAN invited Delegates to give the further views of their authorities on the various redefinition proposals before the Committee.

2. The UNITED STATES Delegate said that his authorities could accept the Netherlands redefinition proposal (COCOM 3415.62/4, paragraph 4) provided that the word "solid" were omitted from sub-paragraph (b) of that definition. The definition would thus read as follows:

"Tantalum electrolytic capacitors n.e.s. as follows:

- (a) All types designed to operate at temperatures exceeding 85°C.
- (b) Sintered electrolytic capacitors.
- (c) Electrolytic capacitors constructed with foils."

3. The BELGIAN, CANADIAN, ITALIAN, NETHERLANDS and UNITED KINGDOM Delegates said that they could accept the Netherlands proposal as amended by the United States in paragraph 2 above. The DANISH Delegate said that his authorities would join the majority opinion on this question.

4. The GERMAN Delegate said that his authorities were not convinced of the necessity to embargo capacitors of the wet sintered type because they could not be stored in view of the danger of corrosion and they thus could hardly be used for military purposes. The Delegate noted that there was general agreement to free the Wendel type of capacitor from embargo and also that no problem arose with regard to slug capacitors (mentioned by the United States Delegation in COCOM 3415.62/5, paragraph 5) since the United States were now prepared to accept the Netherlands redefinition. As for the foil types, they felt that the strategic types would be covered by sub-item (a) and sub-item (c) did not seem necessary. Finally the Delegate stated that his authorities could, in a spirit of compromise, accept the amended Netherlands redefinition but they reserved the right to return to the question of wet sintered capacitors and those made with foils at a later date.

5. The UNITED STATES Delegate reminded the Committee that his authorities had not withdrawn their proposal that Wendel type capacitors should be placed on the Watch List because of the large amount of military development in this field. This was a separate question however and was not a condition of his authorities' acceptance of the Netherlands redefinition.

6. The NETHERLANDS and UNITED KINGDOM Delegates said that their authorities did not favour adding Wendel type capacitors to the Watch List.

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7. The GERMAN Delegate said that his authorities were not in favour of adding Wendel type capacitors to the Watch List. His authorities would therefore be grateful if the United States Delegation did not insist that Wendel type capacitors should be added to the Watch List.

8. The UNITED STATES Delegate pointed out that it was not the wish of his authorities to overburden the Watch List but because a substantial percentage of this type of capacitor was used for military purposes, and military development was continuing, they felt that the proper course was to keep them under surveillance by placing them on the Watch List.

9. The FRENCH Delegate said that his authorities did not find that the Netherlands redefinition proposal was perfectly satisfactory. Referring to the table of various types of tantalum capacitors given in the attachment to COCOM 3415.62/5, he said that types 1 and 2 (those made with foils and the Wendel type) were of the classical type with tantalum replacing aluminium in the electrodes. The third and fourth types (wet and dry sintered) had tantalum electrodes and used sulphuric acid for the electrolyte. The wet type had a short life and could not be stored and thus had no military uses whereas the dry sintered type was highly strategic. The fourth and fifth types mentioned (dry sintered and slug) were in fact the same type. The word pulverulent was sometimes used to describe the result of sintering. Finally, the Delegate suggested that the Netherlands redefinition proposal should be amended as follows:

"Tantalum electrolytic capacitors n.e.s. as follows:

- (a) All types designed to operate over the whole range of ambient temperatures extending from below -45°C. to above +100°C.
- (b) Solid sintered electrolytic capacitors."

With regard to capacitors made with foils, which would be embargoed under the Netherlands redefinition, the Delegate said that he was at a loss to see how they could be considered strategic. The Netherlands Delegate had stated that they could be used with higher voltages than other types and were thus necessary if electronic tubes were to be used but the French authorities were not convinced by this argument. They had already compromised on the question of the range of temperature and they strongly urged that foil types should not be embargoed.

10. The UNITED STATES Delegate said that his French colleague might have overlooked the extent to which capacitors were used for military purposes. If the Netherlands definition as amended by the United States were accepted, the types covered were those which were used almost completely for military purposes in the United States. He asked whether the French Delegation had any information to show that this would not also apply in the Soviet Bloc.

11. The GERMAN Delegate said that he agreed with his French colleague's remarks concerning capacitors made with foils. Even if sub-paragraph (c) were deleted from the Netherlands proposal, types operating at temperatures over 85°C. would still be embargoed. In the German memorandum (COCOM 3415.62/1) it was stated that capacitors with a temperature range below 85°C. had no military uses. The Delegate however appealed to his French colleague to accept the Netherlands compromise proposal in order to obtain a concrete result and free the Wendel type from embargo as soon as possible.

12. The CHAIRMAN in summing up noted that almost all Delegations accepted the Netherlands redefinition as amended by the United States. He further noted that at a previous stage the French Delegation had been ready to agree to embargo wet sintered types as well. The French Delegation, however, felt that the foil type should be excluded from embargo and placed on List IV. Several Delegations had appealed to the French Delegation to rally to the majority in order to facilitate agreement.

13. The FRENCH Delegate said that he would report the statements made at the present meeting back to his authorities and suggest that they reconsider their position.

14. The COMMITTEE decided to continue the discussion on July 16th.